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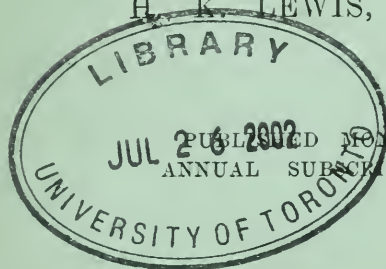
THE BRITISH JOURNAL OF DERMATOLOGY

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BRITISH JOURNAL OF DERMATOLOGY

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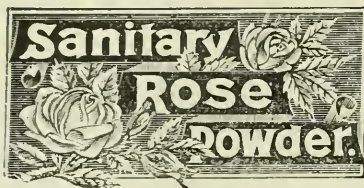
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OCTOBER, 1911.

THE TREATMENT OF ACNE BY VACCINES.*

By SIR MALCOLM MORRIS, K.C.V.O.,

AND

ERNEST DORE, M.D., M.R.C.P.

THERE has been much difference of opinion not only as to the morphological and cultural characters of the acne bacillus, but also concerning the exact part which it plays in the symptomatology of acne in contra-distinction to that of the staphylococcus. While these points are still in doubt, the employment of vaccines in the treatment of this disease must be, to a large extent, empirical, and it will be necessary in the first place to give a brief account of the work of various observers who have investigated the subject both from an aetiological and a therapeutic standpoint.

The acne bacillus was discovered by Unna in 1893, and a full description of it was given by his laboratory assistant Hodara in 1894(1). Unna described the bacilli as small plump rods $1\frac{1}{4}$ to $1\frac{1}{2}\mu$ in length, and $\frac{1}{3}$ to $\frac{1}{2}\mu$ in breadth. They were arranged irregularly, or in threads of three or four. They stained easily with basic aniline dyes, and were completely decolorised by acids. Apparently Unna never grew the bacillus, but Engman, working in Unna's laboratory with Hodara, claims that he obtained poorly nourished plate cultures, but no subcultures at that time.

In 1897 Sabouraud (2) found a micro-bacillus in great abundance in the fatty cylinders expressed from the sebaceous glands, and believed it to be the cause of oily seborrhœa, acne and Alopecia

* Read at the Australian Congress of Medicine, September, 1911.

areata. He cultivated his organism from sebaceous material on peptone glycerine agar acidified with acetic acid. The first result was a growth of non-liquefying staphylococci, followed in three or four days by conical pinkish or brownish colonies characteristic of the micro-bacillus.

In May, 1899, Gilchrist found a special bacillus, which he called *Bacillus acnes*, in smears from 96 pustules in 55 cases of acne. In culture, 54 of the 96 were sterile on agar, 11 gave a culture of the bacillus on glycerine-agar, and 31 gave growths of *Staphylococcus epidermidis albus*. Pure cultures were best obtained from acne nodules. The skin was sterilised and the nodule incised, and the first portion of the contents of the nodule squeezed out and wiped off with alcohol; the remaining portion was expressed and transplanted *en masse* to slant glycerine-agar tubes. The clump gradually increased in size, forming a soft, white, pultaceous, easily movable mass, which was smooth, moist, glossy, and had a regular edge. The organism grew in blood-serum, in glucose agar in stabs (but with no gas-formation) in bouillon, and very slightly on potato. The bacillus was described as a short thick organism in the smears, becoming longer, thicker, and branched in cultures. Irregular staining was observed in older cultures. The bacillus was fatal to mice and guinea-pigs, which died in about a week, and it was recovered in pure culture from various organs.

In a further series of cases published by the same observer in 1903, cultures were taken from 145 lesions from 31 cases. Of these, 52 yielded pure cultures of the acne bacillus, 28 were sterile, 15 showed cultures of *B. acnes* and only a few colonies of *Staphylococcus epidermidis albus*, 29 gave cultures of *B. acnes* and numerous colonies of *Staphylococcus albus*, 21 yielded only cultures of *Staphylococcus albus*. The reason that so many cultures were sterile was attributed to the fact that some of the media were not properly made. Gilchrist was also able to demonstrate acne bacilli in sections of acne lesions, and succeeded in obtaining agglutination of the bacilli by the blood-serum of patients suffering from acne. Further inoculation experiments on animals were negative.

Gilchrist's (3) work was followed in 1907 by a paper on the bacteriology of the sebaceous glands by Halle and Civatte (4). These authors, working in Darier's laboratory in the Broca Hospital on the anaërobic

bacteria of the skin, found a Gram-positive bacillus of irregular shape, and often resembling a coccus, in great abundance in seborrhœic filaments and comedones. This they identified with the organism described by Unna and Sabourand. The bottle bacillus also occurred, in relatively small proportion, and some rare Gram-staining cocci. Cultures were made by crushing a fragment of a comedo or sebaceous plug on a glass slide, and making an emulsion in a few drops of bouillon, which was then conveyed to the medium by means of a pipette.

Very few colonies were obtained in aërobic cultures, while in the anaërobic they grew abundantly. The colonies in the anaërobic cultures consisted of a pure growth of an easily-stained, fine bacillus, often of the length of, but thicker than, a tubercle bacillus. Both comedones and seborrhœic filaments gave identical results, and if bacilli from a culture were placed on a slide on which a filament had been spread, it was impossible to distinguish between the organisms. The bacillus was found to be a strict anaërobe. All attempts to transplant it to aërobic media of various kinds were absolutely negative.

In April, 1909, Fleming (5) published his work on the ætiology of acne vulgaris and its treatment by vaccine. He described his organism as seen in smears of comedones and pustules as a small Gram-staining bacillus varying in length from under $1\ \mu$ to $3\ \mu$ or $4\ \mu$, and about $\frac{1}{2}\ \mu$ wide. In the comedo the bacilli were in general shorter and stouter, and stained evenly; in the pustule longer forms were seen with irregular staining. Smears from acne pustules practically always showed the presence of the specific bacillus. Often no other organism was found, but in many cases staphylococci were present in large or small numbers. In 44 per cent. of the pus-films examined acne bacilli alone were found, acne bacilli with staphylococci in 53 per cent.; in six cases no organisms were observed, although two of these gave pure cultures of the bacillus; in one case only bottle bacilli were present.

Out of 132 cultures from acne pustules, pure growth of the acne bacillus was obtained on thirteen occasions. Of the other cultures, 35 were sterile, 40 grew both acne bacillus and staphylococcus, and 44 grew only staphylococcus. The large number of sterile cultures was thought by Fleming to be due to the fact that the bacillus only grew with the greatest difficulty in some of the media used.

In pure cultures of the bacillus no change was observed for about three days except an increase in the transparency of the mass of pus. Then three or four small white spots appeared which slowly increased in size to attain a diameter of 1 mm. at the end of a fortnight. In culture the appearance of the bacillus was the same as in pus-films.

In addition to the acne bacillus, the staphylococcus and the bottle bacillus were the chief organisms found. *Staphylococcus aureus* only occurred on two occasions, all the other staphylococcic cultures being of the white variety, very few of which liquefied gelatin. Fleming also tested the agglutinating power of the serum of patients affected with acne on the bacillus, and obtained positive results in some cases, although not with the same dilutions as Gilchrist. He also found the opsonic index raised considerably in twenty-six cases examined. Experimental inoculations of week-old broth cultures into two guinea-pigs were negative, but he succeeded in producing a crop of pustules on the skin of the forearm of a person suffering from acne by rubbing in a week-old broth culture of an acne bacillus freshly isolated from him. Films from the pustules so obtained showed no other organisms than the acne bacillus.

Of the investigations carried on by Südmersen and Thomson (6), who believed that they had demonstrated the existence of at least two distinct strains of the acne bacillus, by Hartwell and Streeter (7), by Molesworth (8), and by Lovejoy and Hastings (9), we must not stop to speak. But it should be stated that Lovejoy and Hastings discovered the acne bacillus not only in acne lesions, but also in the sebaceous secretion of apparently healthy skin, especially around the alæ nasi, the sebaceous plugs giving smears and cultures of the bacillus as readily as the lesions. They found that gelatin agar or broth media were the most suitable, and that the difficulty of cultivation was largely overcome by growing the organism anaërobically. Material from pustules, or large comedones, planted in masses in slant-tubes rendered anaërobic, gave rise, at the end of three days, to a mixed growth of round, greyish, heaped-up colonies of acne bacilli and larger white colonies of staphylococci.

From the descriptions of the acne bacillus given, it seems probable that, despite its somewhat elusive and protean characters, all the observers named were working with the same or with different strains

of the same organism. The apparent discrepancy as to the aërobic nature of Sabouraud's bacillus is explained, as Molesworth says, by the fact that the micro-bacilli in the centre of the material used for inoculation in Sabouraud's cultures were so protected by the surrounding fatty material that the penetration of oxygen was insufficient to prevent growth. Gilchrist and Fleming, whose organism grew aërobically, planted their cultures *en masse*. The other observers, with the exception of Hallé and Civatte, succeeded in obtaining aërobic cultures, although with difficulty. Sabouraud made his inoculations deeply into the culture medium, which again would tend to bring about anaërobic conditions. In some work done by one of us in 1901-2 an attempt was made to verify Sabouraud's statement that *Alopecia areata* was caused by the micro-bacillus, but although the organism was found in scrapings from the scalp and in a small proportion of the atrophied hairs, all attempts to grow it aërobically from these or from the comedo failed, and this we believe has also been the experience of other workers.

Opinions as to the cause of the suppuration of the comedo are divided into two schools. Unna, Gilchrist, and Fleming believe that both comedo and pustule are produced by the bacillus, while Sabouraud, Whitfield (10), and Molesworth consider that the bacillus causes the comedo only, and that the pustulation is due to staphylococci. It is difficult to reconcile this difference of opinion among skilled bacteriologists, and it is possible that in some cases the pustules are caused by the bacillus while in others the staphylococcus is the cause of the suppuration, as in staphylococcic sycosis. In some cases circulatory or digestive disturbance may be a determining factor, as it undoubtedly is in the pustulation of rosacea. It appears to us that the evidence for the acne bacillus as a pus-producer is very strong; that the close approximation of pustule to comedo might indicate a further stage in the same process rather than a secondary infection as argued by Whitfield, and that in those cases in which the staphylococcus predominates, the effects of the bacillus are overshadowed by those of the more active staphylococcus.

Therapeutic Effect of Vaccines in Acne.

Fleming divides cases of acne, for therapeutic purposes, into three classes: (1) Those in which the comedo is the dominant feature,

including some which have progressed to the indurated and pustular stages. In this class the acne bacillus is the primary cause, and the staphylococcus, if present, is a secondary factor. These cases may therefore, he holds, be treated with a vaccine of acne bacillus alone. (2) A large number of the indurated and pustular varieties where both staphylococcus and acne bacillus are active factors in the inflammatory process. A mixed vaccine of staphylococcus and acne bacillus is required in this class. (3) Cases where there is more acute inflammation tending towards a furuncular form. Here the staphylococcus is the active factor, and vaccines of the organism should at first be given, not forgetting that at the basis of the condition there is an acne bacillus infection. Fleming advises that before vaccine treatment is begun a microscopical examination of smears of the pustules should be made in order to determine the class to which the case belongs.

In one case a dose of 10,000,000 bacilli derived from a three weeks' culture on acid agar caused a marked negative phase, followed by a rise and a subsequent drop in the opsonic index. Smaller doses of 6,000,000 showed no negative phase. The clinical condition showed a very marked correlation with the index, fresh lesions appearing with a low index and improving as the index rose. This close correlation rendered the continuance of the opsonic estimation unnecessary in guidance for treatment, the clinical condition being sufficient for this purpose. Both autogenous and stock vaccines of acne bacillus were given combined with stock vaccines of staphylococcus.

Some of the cases failed to improve on stock acne vaccine and improved when an autogenous vaccine was given; one case was treated with staphylococcus vaccine for several months, and the pustulation only improved when acne bacillus vaccine was administered. Experience, however, showed that in the vast majority of cases great improvement was obtained by the injection of a stock vaccine combined with staphylococcus when that organism was present.

The dose varied from four to ten millions, given at an interval of one to two weeks.

The appearance of fresh lesions either during the period of low resistance following the positive phase, or soon after an inoculation had been given, indicating too large a dose, was taken as a guide to treatment. The dose was increased until it just failed to show any

negative phase. A number of cases were greatly improved, and in a fair proportion the lesions totally disappeared. In several instances there were recrudescences, which, however, soon yielded to subsequent treatment.

Western (11) divides cases of acne into three groups, accordingly as (1) the comedo, (2) induration, (3) abscess-formation is the dominant feature. This division corresponds roughly with Fleming's bacteriological classification already referred to.

In the first group he instances a case in which films of the comedones showed numerous acne bacilli with very few staphylococci. The acne bacillus was grown, and a dose of vaccine varying from six to ten millions given at intervals of about eight days. The only local treatment was systematic expression of the comedones. After five doses the skin was clear, and the comedones ceased to appear.

According to this observer, the duration of treatment varies greatly according to the severity of the infection. If, however, an auto-genous vaccine be used, a rapid improvement may be confidently expected, and most cases will be clear within a month or two.

In the second group (*Acne indurata*), due to a mixed infection of acne bacillus and *Staphylococcus albus*, treatment was directed against both micro-organisms. In the case of a boy with numerous comedones, pustules, and extensive abscesses with induration, staphylococcus vaccine produced improvement in the superficial pustulation, but the comedones and tracking abscesses continued to form. The pus from the abscesses had been examined by culture with negative results; the acne bacillus was present, however, in films of the pus. The acne bacillus was then grown on suitable media, and treatment by vaccine thus obtained produced striking results, the cutaneous abscesses drying up and comedones being found with difficulty. In another case of *Acne indurata* of three years' duration, treatment with staphylococcus vaccine for six months was successful in relieving the superficial pustulation, but the deep indurated foci did not cease to appear until acne bacillus was administered.

In the third group of cases, in which there is marked superficial pustulation due to infection with *Staphylococcus albus*, and very few sebaceous plugs, the pustulation was first treated with staphylococcus vaccine, and when this had cleared up it was possible to determine how far the acne bacillus was the real basis of the condition.

In a case of *Acne pustulosa* on the back and chest, no comedones could be found, and culture failed to grow anything except *Staphylococcus albus*. After four injections of this organism, the pustules had entirely disappeared, and it then became evident that there was a considerable number of small comedones and sebaceous plugs, which on examination showed numerous acne bacilli and cleared up after an acne bacillus vaccine was given.

In Western's opinion, either stock or autogenous vaccine of both organisms may be used, and it is seldom necessary to make an autogenous staphylococcus vaccine for a case of acne infected with that micro-organism. Occasionally, however, cases appear to make no improvement until their own organism is given. This rule is not so definite in dealing with the acne bacillus, and although he believes that the highest percentage of successful cases will be obtained when autogenous acne bacillus is used, the latter will suffice in many cases.

Lasseur (12) reported on twenty cases of acne treated with a mixed vaccine of micro-bacilli and cocci. In nine cases of pustular acne with comedones the results were favourable, but the effect was much more pronounced on the papulation and pustulation than on the comedones. In eight cases the effect was almost *nil*. In three cases there was temporary aggravation of the pustules brought about by too close approximation of the doses. In two cases of pure comedo, very pronounced amelioration was produced, and the improvement was maintained for three months. The doses were from five to ten millions of acne bacilli and from 125 to 250 millions of staphylococci every five to ten days, according to the severity of the case.

Engman (13) reports on 118 cases of *Acne vulgaris*, 40 of which were treated with staphylococcus suspensions and 78 with suspensions of acne bacillus. He regarded staphylococcus vaccine as of little value. Some of the cases improved to a certain point, but then remained at a standstill, and its use was abandoned until he began treatment with acne vaccines in 1909. He found them of service, however, in rendering the lesions sterile of cocci, thus enabling pure cultures of the acne bacillus to be more easily obtained.

The first results with acne bacillus vaccine were discouraging, and many of the cases became worse, but success followed an improvement of the technique, and Engman now regards it as one of the most brilliant therapeutic agents he has seen in dermatology. The

only drawback is the deeper and more marked scarring caused by the complete and rapid involution of the lesions.

Of 150 cases observed by Gilchrist, 40 were treated three and a half years ago by *Staphylococcus albus* alone; of 91 private cases, some were given X-rays, local applications and laxatives, others vaccines only. Many cases have remained cured, some had relapses. As the patients improved, smaller doses of vaccine were administered. Doses of 100 to 200 millions of bacilli given at first were found to be too large, and sometimes produced definite constitutional disturbance. The dose recommended is 5 millions, increased each week up to thirty millions. The appearance of fresh nodules three days after the injection is an indication of too large a dose. In many patients seven to ten injections were sufficient to rid them of their acne. The oily seborrhœa accompanying acne was benefited by vaccines, but not so much as by X-ray applications. As the result of the past three years' experience, the observer is of the opinion that vaccine-therapy is of undoubted value, and in many cases curative. *Staphylococcus albus* vaccine was found helpful in cases of the superficial pustular type, but in the nodular variety, acne bacillus vaccine gave the best results.

In Engman's experience small doses at from five- to seven-day intervals, with methods employed to produce local hyperæmia, were sufficient to secure immunity in the majority of instances. If, after a few doses, new lesions appeared after the third day, a larger dose of seven to ten millions was given, but this was rarely necessary. Under this technique even the deep indurated lesions underwent comparatively rapid involution, and cases of acne which had resisted skilled treatment for many years yielded to this method. A great advantage of the treatment was that the thick, muddy, yellowish, oily appearance of the skin disappeared, and the oily seborrhœa of the scalp also improved. It was not found necessary in any of the cases to use staphylococcus vaccines, and Engman regards the coccus as a secondary factor of no therapeutic importance.

Inasmuch as the vaccine treatment of acne has not yet passed out of the experimental stage, we have thought it desirable to state the conclusions arrived at by others. Speaking now for ourselves, we must avow our inability to agree with Engman in regarding acne bacillus vaccine as one of the most brilliant therapeutic agents in

dermatology, comparable in its effects to that of antitoxin on the diphtheritic membrane. As the result of an extensive use of vaccines in this disease, we have been compelled to form a very qualified estimate of their value. Our experience certainly does not warrant us in advising their employment as a routine form of treatment of the affection. Rather we hold that they should be reserved for carefully selected cases. Such cases may be divided into three groups.

The first consists of cases characterised by severe, deep-seated pustules, forming boil-like lesions, occupying a large area—the face, and more or less of the chest and back; lesions in which micro-organisms are present in abundance, the staphylococcus greatly predominating, and the acne bacillus being difficult to find.

The second group is formed of cases in which the lesions are indolent and superficial, consisting chiefly of inflamed comedones which do not for the most part go beyond the papular stage, pustulation being slight, and, so to speak, accidental.

The third group is made up of cases which overlap the first and second group—cases which combine the more severe and less severe lesions characteristic of those groups.

For cases of the first group a staphylococcus vaccine may be used with advantage. But it must be administered over a period of some months, and it must not be regarded as a substitute either for local treatment or for the ordinary forms of constitutional treatment. In cases of the second group we have found an acne bacillus vaccine to give good results, not, indeed, in all, but in a reasonably large proportion. In cases of the third group mixed vaccines of staphylococcus and acne bacillus are indicated. But in these two groups, as in the first, attention must be paid to the other factors concerned in the causation of the acne, such as the rapid development of certain glands with the advent of puberty, and the plugging of the ducts, reflex circulatory disturbance due to the strain thrown upon the nervous system by the changes of adolescence, disorder of the digestive organs and the formation of intestinal toxins. Chronic constipation and any other functional disorders must be corrected, and the diet and mode of living carefully regulated. Nor must local measures be neglected. If suppuration has not occurred the comedones should be squeezed out and the part washed with soap and water frequently and energetically; if the suppurative stage has been reached, the pustules should

be punctured or incised, bathed with hot water and dressed antiseptically; the skin should be disinfected, and in all cases of acne of the body reinfection should be guarded against by frequent changes of the garment worn next to the affected part. Other valuable measures are the X-rays and radium. To the former the severest cases, in our experience, will yield if the treatment is sufficiently prolonged; the latter is of value for indurated nodules.

With regard to the comparative advantages of autogenous and stock vaccines, we are disposed to agree with those who hold that the former are the most efficacious, though in cases belonging to the second of our groups it is better, perhaps, to use a stock vaccine from a trustworthy source, owing to the difficulty of cultivating the acne bacillus. We have got our best results in cases of this group with a stock vaccine in doses of from five to ten millions, given every week or ten days. If the cultivation of the bacillus be attempted, it is well to inoculate not only the special media on which the bacillus will ordinarily grow, viz. acid agar, glucose agar (anaërobically), and oleic acid agar, but also human blood agar and Löffler's blood-serum. Some forms of this bacillus are peculiarly delicate, and resent change of nutriment, but in general the micro-organism will grow upon the three special media mentioned. It is well to remember that pus containing the bacillus should not be allowed to become dry, as this frequently kills the bacillus.

Some of the observers whose work we have mentioned appear to attach importance to the opsonic index in vaccine-therapy. That view we do not share, our opinion being that in this connection the opsonic index may be disregarded.

In conclusion, experience prevents us from claiming more for vaccine-therapy in acne than that it is a useful adjuvant of the ordinary forms of treatment. Occasionally, indeed, the condition will clear up in a remarkable manner under the administration of vaccine, but there is a marked tendency to relapse, and it is usually necessary to continue the vaccine for long periods and to reinforce it with the other measures mentioned. As an auxiliary to such measures it has a place in the treatment of acne, but there is no evidence that it is capable of inducing true immunity. When the real nature of immunisation is better understood it may indeed be found that certain of the local measures that have been referred to, and

especially radio-therapy and radium-therapy, bear in the process a part at least as important as treatment by vaccines.

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RECURRENT HERPES OF THE BUTTOCK.

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RECURRENT or febrile herpes is usually described under two headings, namely, Herpes facialis and Herpes progenitalis.

Herpes facialis occurs most commonly upon the lips, but it may also attack the nose, the external ear, the mucous membranes of the mouth, the neck, or the cheek. Not infrequently when it attacks the cheek it may be very extensive, and being confined to one side of the face it may be distinguishable from Herpes zoster of the second or third divisions of the fifth cranial nerve only by the fact of its recurrence.

Herpes progenitalis may attack the prepuce, the glans penis, the sheath of the penis, or the urethra. In women it may occur upon the mons veneris, the labia majora, the clitoris, or the cervix uteri.

These facts are well known. But it is not so generally recognised that recurrent herpes may involve parts away from the face or the genitals.

In the *British Journal of Dermatology* I recorded several examples of recurrent herpes of the fingers. I have since observed other similar cases, and in one case a patch of herpes appeared again and again upon the same part of the wrist.

In the *Annales de Dermatologie*, vol. vi, 1905, there is a paper by Dubrenilh, of Bordeaux, entitled “de l’Herpès récidivant de la fesse,” in which he relates some examples of recurrent herpes of the buttock, and quotes the records of several cases previously described.

The first case mentioned by Dubrenilh, and which he says has served as the basis of all subsequent descriptions, is one published by Bertholle in 1876. Bertholle’s case was that of a medical man, aged 48 years, who had had Herpes labialis since infancy, Herpes preputialis since 20 years of age, and since the age of 30 recurrent herpes of the left buttock. The attacks of herpes on the buttock occurred about every two months, and were at first preceded by migraine, later by neuralgia of the thigh, leg, and scrotum. The eruption was always on the same area. It was accompanied by painful swelling of the glands and sometimes by colic and bilious diarrhœa. The patient was asthmatic.

Other cases quoted in detail by Dubrenilh are: One by Feulard; one by Coriveaud; two cases previously published by himself and Dorso; an unpublished case of Thibierge; and a case communicated by Lecountour, of Brest. To these he adds the notes of another case observed by himself, making in all eight cases.

Summarising the notes of these cases, Dubrenilh says that the eruption begins as a red patch, upon which there develops, in the course of twenty-four hours, vesicles of about the size of a grain of



Recurrent herpes of the buttock.

millet-seed. In the course of ten days or so the eruption dries up and completely disappears. Generally the same area of the same buttock is affected, though not always the same spot exactly.

In five cases the right buttock and in two the left was involved, and in one case (Coriveaud's) the right and left at different times.

The eruption appeared for the first time at the ages of 30, 10, 26, 24, 23, 42, 33 and 41 years. Its duration was from two to twenty-five years. The outbreaks occurred at intervals, varying in different cases, generally every month or every few months.

In one case the eruptions were preceded by attacks of megrim and

of sciatic neuralgia, in two others by sciatic neuralgia. In four cases there were no prodromal symptoms of any sort. In one case the attacks were accompanied by violent neuralgia, in one by pruritus.

A study of the ætiology of these cases brought out the facts that migraine, gout, gravel and nervous troubles were common, either as personal or as family antecedents, and Dubreuilh concludes that Herpes recurrens of the buttock is a manifestation of latent or declared gout.

Since reading Dr. Dubreuilh's monograph the case of which I now publish the photograph has come under my notice, and Dr. J. H. Sequeira has very kindly furnished me with the notes of three cases which he has observed.

PERSONAL CASE OF RECURRENT HERPES OF THE BUTTOCK.

Leonard R—, aged 7 years, attended the out-patient department of St. Bartholomew's Hospital on February 10th, 1911, for an eruption on the buttock. The eruption consisted of a large herpetiform group of vesicles covering almost the whole of the right buttock, in a patch which measured 9 to 10 cm. in diameter. The vesicles were in part confluent and were seated on an erythematous base. The eruption had appeared during the last few days without any preceding or accompanying pain. The boy had had several attacks of herpes upon the lips, and he had twice had a similar eruption on the right buttock but not so large. There was no rise of temperature. Nothing was discovered in the family history. The photograph was taken during the boy's visit on February 10th, 1911.

For the following notes of three further cases I am much indebted to Dr. J. H. Sequeira, under whose care they were.

DR. SEQUEIRA'S CASES OF GLUTEAL HERPES.

CASE 1.—The daughter of a medical man, aged 24 years, consulted me (J. H. S.) on account of a recurrent eruption on the gluteal region in 1909. The eruption consisted of a small group of vesicles upon an inflamed base, the whole group not being larger than a sixpenny piece. The area affected was on a level with

the top of the gluteal cleft, and about the middle of the left buttock. There was one enlarged rather tender gland at the outer end of the inguinal gland group. The eruption appeared just before the onset of the menstrual period. There was no irregularity in the menstrual functions, and no dysmenorrhœa. The patient was otherwise in perfect health. The eruption came back with nearly every menstruation, and had recurred during two years.

CASE 2.—A married woman, aged 28 years, who suffered from severe dysmenorrhœa, necessitating her lying in bed for at least two days at every period. The eruption was in exactly the same area, and, curiously, on the same side. The vesicles when I have examined her were never more than five or six in number closely grouped together. They always dried up with the formation of a scab, which fell off in about a week. There was a tender enlarged inguinal gland. The eruption occurred irregularly, but always just before menstruation. Sometimes the patient would be free from an outbreak for two or three months. She had noticed the trouble for three years.

CASE 3.—A professional man, aged 40 years, consulted me in 1910 for an exactly similar condition. The eruption occurred two or three times a year during the past two years. The vesicles were small and upon an erythematous base, occupying an area rather less than a shilling. The eruption ran the same course as in the case mentioned above. There was always some tenderness in the groin, due to an enlarged gland. This patient complained of pain down the back of the thigh during and often just before the outbreak of vesicles. He was in good general health, but had had gonorrhœa ten years previously. His father and his father's family were gouty.

It will be noted that in two of Dr. Sequeira's cases the herpes appeared just before the onset of the menstrual period, the recurrence of Herpes labialis and of Herpes progenitalis at menstrual periods being well known. In the male case of Dr. Sequeira's there was, as in Dubrenilh's cases, evidence of gout in the patient's family. In my own patient there was no clue to gout or other metabolic disturbances in the boy's family. The boy had had attacks also of Herpes labialis, just as Herpes labialis may occur in those patients who get Herpes preputialis or recurrent herpes of the fingers.

These cases are of interest as showing that recurrent herpes may

occur in parts away from the commonly recognised situations. They add little, if anything, to our knowledge of the ætiology of recurrent herpes. There is evidence that recurrent herpes of the buttock, in common with other forms of recurrent herpes, may be associated with metabolic disturbances, particularly with that which has been called lithæmia or arthritism. But this does not help us to understand the true nature of *Herpes recurrens*, the cause of which remains concealed.

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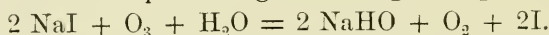
THE TREATMENT OF INTRA-NASAL LUPUS BY SODIUM IODIDE AND PEROXIDE OF HYDROGEN (PFANNENSTIEL'S METHOD).

By J. H. SEQUEIRA, M.D., F.R.C.P., F.R.C.S.

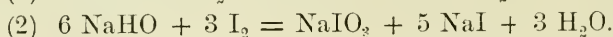
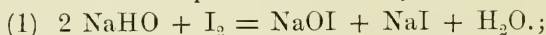
THE treatment of intra-nasal lupus is always a matter of great difficulty, and many of the failures in the treatment of *Lupus vulgaris* depend upon the fact that the mucous membrane lesions are unaffected by the measures usually employed. Thorough curetting of the affected areas and the application of caustics and antiseptics often give good results, but the constant removal of tissue by repeated operations leads to great deformity. The use of the galvano-cautery, lightly applied with the cautery point at a dull-red heat, has also been used with considerable success, and this has been the routine measure used in the Finsen Institute at Copenhagen for some years. Recently it has given place to the method which I propose now to describe.

In the numbers of *Hygiea*, published in May and June, 1910, Dr. Pfannenstiel, of Malmö, in Sweden, described a method of treating *Lupus cavi nasi* which was successful in four cases. In the present year Dr. O. Strandberg, the Rhino-Laryngologist in the Finsen Institute, published a report of thirteen cases treated in the institute by Pfannenstiel's method (*Berlin klin. Wochenschrift*, 1911, No. 4). Since then, at the meeting of the Deutsch. Zentral Komite zur Bekämpfung der Tuberkulose, held at Berlin in April, 1911, Dr. Forchhammer, of the Finsen Institute in Copenhagen, spoke in the highest terms of the new method, and cited fifty successful cases. I have tried it in my own clinic, and am of opinion that if the details of the treatment are carefully followed the new measure is of great utility.

The local application of iodine to lupus of the mucous membranes has long been in use, and in some cases it gives excellent results. The difficulty is that the applications can only be made by the physician or a nurse from time to time, and the treatment is therefore intermittent. Pfannenstiel's method depends upon the fact that in the presence of ozone iodides are decomposed and free iodine is liberated, the chemical formula representing this change being:



The free iodine reacts upon the sodium hydrate as follows:



More sodium iodide is thus formed, and if there is more ozone present fresh free iodine is liberated.

It is well known that iodides are excreted from the mucous linings of the air-passages, and particularly by the nasal mucosa. In the second place, nascent iodine has a powerful bactericide action.

Pfannenstiel's treatment consists in the internal administration of iodides and the local application of peroxide of hydrogen to the affected surfaces, with the object of liberating free iodine in the presence of the tubercle bacilli in the lesions of the mucous membranes.

The procedure is as follows:

The patient is given 45 gr. of sodium iodide *per diem*. The iodide is divided into six doses given at regular intervals.

Every morning the nasal cavity is thoroughly cleansed of crusts and scabs by the nasal douche containing some sodium chloride and a mild antiseptic such as boric acid. After this thorough cleansing and the cavity is dried the parts are ready for the application of the tampon. The tampon consists of sterilised gauze, which is applied by the surgeon, and care is taken that it lies in contact with the affected parts. Fortunately in most cases of intra-nasal lupus the ulceration is in the inferior meatus and well within reach, the commonest sites being the septum, where a perforation often exists, and the inner wall of the ala and the neighbouring parts. The patient is provided with a small bottle of a 2 per cent. solution of peroxide of hydrogen and a pipette, and with the pipette filled with the fluid he constantly keeps the tampon moistened with the peroxide solution. He is instructed that he will know when the tampon is saturated by the fact that the solution will trickle back into the pharynx. He is impressed with the importance of keeping the parts constantly moist, and with a little encouragement the necessary perseverance can usually be obtained.

In some early cases the ulceration heals in a week or ten days, but usually a fortnight or three weeks' treatment is necessary. One of the Copenhagen cases was treated steadily for three months.

To determine whether the combination was really the cause of the remarkable results observed, Dr. Strandberg treated some patients first with peroxide tampons alone, and in other instances administered the iodide without using the tampons, but the results were negative. Further, to obviate the suggestion that the cases in which successful results were obtained might have been cases of luetic ulceration, every case of Strandberg's series was tested by the Wassermann and the von Pirquet's tests. In every case the Wassermann reaction was negative and positive reaction was obtained in the cuti-tuberculin test.

It is as yet too early to speak about the permanency of the results, but the measure is worth attention, if only that it may obviate mutilating operations.

A REPORT ON SEVEN HUNDRED CONSECUTIVE CASES
OF *TINEA CAPITIS*.

By H. M. SCOTT, M.R.C.S., L.R.C.P..

Clinical Assistant in the Skin-Department of the London Hospital.

The following observations were made in a series of seven hundred cases of scalp ringworm seen in the Dermatological Clinic at the London Hospital. As the majority of the patients were attending the elementary schools of the districts around the hospital, the proportion of the various forms of tinea observed may be taken to represent, with some accuracy, the distribution of the ringworm parasites in the school-children of London. The hair was examined microscopically in every case and the fungus demonstrated. Owing to the large amount of work in the Department it was found impossible to make cultures with any approach to regularity and the varieties of microsporon and endothrix have been grouped together.

Variety of fungus.—Of the 700 cases, 628 were cases of microsporon ringworm and 72 were cases of endothrix, respectively 89·8 and 10·2 per cent.

Sex.—405 of the 700 patients were boys and 295 girls, respectively 57·8 and 42·2 per cent. There was some difference in the sex proportion in the two varieties, the microsporon being relatively more common in the boys.

	Males.	Females.	Total.
Microsporon cases	366	262	628
Per cent.	58·3	41·7	
Endothrix cases	39	33	72
Per cent.	54·2	45·8	

The difficulty in recognising the presence of tinea in girls with their longer hair may account for some of this discrepancy, but in view of the fact that the children are now carefully and systematically examined in the schools, it would appear that there is a somewhat greater prevalence of the affection in boys.

Age.—The most common ages at which the children were brought to the hospital were the sixth, seventh and eighth years. There was a steady increase in the number of patients up to these ages and an equally steady decline afterwards. The following table shows the ages.

Age of patients in years when admitted for treatment.	3	4	5	6	7	8	9	10	11	12	13	14	Age not recorded.
Number of patients under respective ages affected with microsporon . . .	26	48	83	100	97	87	60	41	35	22	9	5	18
Number of patients under respective ages affected with endothrix . . .	1	2	4	7	9	14	14	6	3	3	3	0	3
The above-mentioned patients together—microsporon and endothrix . .	27	50	87	107	106	101	74	47	38	25	12	5	21

The duration of the disease in the cases attending the hospital varied. In most cases it had only been noticed in the routine examination of the children; in others we were informed that the affection had been present for a couple of years, and in two cases for five years.

The treatment has been by the X-rays, written consent from the parents or guardians being first obtained. As a routine measure the whole of the scalp was treated, the five-exposure method of Kienbock, as modified by Dr. Adamson, being employed. In a very few cases a single area was treated, this being covered with collodion to prevent infection of the surrounding parts. It may be of interest to mention that nearly three thousand cases of Tinea capitis have been treated by the X-rays in this clinic by this method without a single case of permanent alopecia.

The after-treatment of cases subjected to the X-rays consisted in regular washing once a week until the hair began to fall, and then the washing was continued every day, the dilute ammoniated mercury ointment or the dilute nitrate of mercury ointment being applied after washing.

In some cases of kerion the X-ray treatment was postponed until the parts had been well fomented with boric acid lint wrung out in hot water.

In a few cases, where the exposure had not effected a complete epilation, a second treatment was given, but not until at least one month had elapsed from the date of the first exposure.

Favus.—It is interesting to note that during the period of the observations above recorded ten cases of favus were seen. These were all in children of foreign origin, and most of them had

recently arrived in this country. The closing of the favus school, which formerly took all these cases, has led to a greater number of favus cases coming to the clinic. The treatment was on the same lines as that used in the cases of tinea.

CLINICAL NOTE.

ON ICHTHYOSIS HYSTRIX.

By GEORGE PERNET, M.D.

THE case of Ichthyosis hystrix referred to by Dr. Bunch in his paper in the September number of the *Journal* (pp. 275-276, Fig. 2 of Plate) appears to be the same case that was brought before the Dermatological Society of London by the late Radcliffe-Crocker in November, 1900 (*vide Brit. Journ. Derm.*, vol. xiii, 1901, p. 12), and described as follows: ". . . a case of Ichthyosis hystrix in streaks occupying the greater part of the anterior and internal aspect of the left thigh, roughly corresponding with the crural branch of the genito-crural and internal cutaneous nerve domains. The growths were raised a finger's breadth or more above the surface with thick black crusts over them; in the less raised portions the horny crusts were broken up into quadrillations, and when these were detached a very slightly raised purplish vascular surface was left. The patient applied because the middle portion had become inflamed, and was suppurating with an offensive discharge. She had had the lesions from infancy, and although they have increased in thickness and prominence, they have not extended over a larger surface." Subsequently, I (not Dr. Radcliffe-Crocker) removed what I could under an anæsthetic. I curetted with a large sharp spoon, using it vigorously and thoroughly, and then I applied the Paquelin canterly at a dull red heat to the denuded and bleeding areas. A wet sal alembroth dressing was applied. The patient was seen subsequently at the time and appeared to be doing well; then I lost sight of her.

It is interesting to note that notwithstanding the vigorous sharp spooning, etc., the horny projections recurred, but looking at the photograph supplied by Dr. Bunch in his paper some areas appear to

have remained flattened and scarred. Probably if the sharp-spooning had been followed by a more intense application of the Paquelin a better result would have been obtained. At any rate that is what I should recommend if the case came under my observation again. The Paquelin would settle the *B. coli*.

Another point of interest is that part again became inflamed and the seat of an offensive discharge, as when seen originally.

With regard to the name *Ichthyosis hystrix*, I think that it would be an improvement to drop the word *ichthyosis* in this connection and substitute *nævus* for it, reserving the name *ichthyosis* for the disease known as *Ichthyosis*—a quite different condition. In this I am well aware I am following Besnier, who suggested the change in nomenclature long ago (see *Kaposi-Besnier*, 2nd French edition, 1891, vol. ii, p. 60, Besnier's foot-note 1).

CURRENT LITERATURE.

DIAGNOSTIC VALUE OF TUBERCULIN AS SHOWN BY NINETEEN AUTOPSIES. G. W. T. MILLS. (*New York Med. Rec.*, March 25th, 1911.)

The writer thus sums up his conclusions: There were ten cases with advanced disease. Of these, four cases can be considered together. One of them gave absolutely no reaction, two only slight reactions, and the fourth negative reaction on first trial, positive on second, but this was in the same eye and is without value. They all died within a comparatively short time (three days to thirty-five days), and the results correspond with the results of others and with those of the injection method, that is, in advanced or very active cases, especially just before death, the reaction is absent or slight. The other six were positive, all but one lived a considerable time beyond the test, and the disease was not in as active or advanced a stage at the time of test as in the four above described. The one exception is a case in which the primary cause was Addison's disease.

The next group includes the cases with scars and evidences of former tuberculosis, nothing of an active nature being present at death. In this group there were seven cases. Three of these were negative; one gave only a questionable reaction at the end of sixty hours, and three gave positive reactions. This proves conclusively that old healed lesions can give positive reactions and strongly positive ones, but at the same time shows that a negative reaction does not exclude an old lesion. The third group includes two with negative autopsy findings, and both gave negative reactions.

To quote, with slight alterations, from the second paper mentioned at the beginning of this article: "The subject may, I think, be summed up in this way: About 20 to 25 per cent. of insane patients will react to the ophthalmo-tuberculin test, in whom no demonstrable lesions can be found, but it is probable that in all

of them an old focus will be found post-mortem. Therefore, a positive reaction in the absence of clinical signs is of no significance, but a negative reaction, except in advanced or very active cases, to my mind positively excludes tuberculosis." These conclusions seem to be perfectly borne out by the autopsy material which is now presented.

Only one word as to the method. The ophthalmic is as reliable as any other tuberculin test, more reliable than most methods, and easy of application in any class among the insane. Bad results to the eye have been reported, but with strict aseptic precautions the danger should be infinitesimal.

J. L. B.

MOSQUITOES AND FLIES IN RELATION TO THE TRANSMISSION OF LEPROSY. DONALD H. CURRIE. (*Public Health Bulletin*, Washington, 1910; full abstract, *Journ. of Trop. Med. and Hygiene*, May 1st, 1911, p. 138.)

THE question of the transmission of leprosy is one which is yet far from being settled, and any contributions on the subject are consequently of interest and importance. From time to time it has been suggested that mosquitoes, flies, bugs, etc., might be responsible for the transmission of the disease, but definite proof of it is still wanting. In nodular leprosy, when a nodule is punctured the mixture of blood and lymph which can be squeezed out is found to be rich in lepra bacilli. Mosquitoes feeding on such lesions might imbibe a certain number of lepra bacilli, which they could transmit to someone else.

The questions which the author has set himself to answer are, whether the blood that the insect has imbibed from a leper does contain the bacilli, and whether such bacilli, if imbibed, remain in the insect for a reasonable length of time.

The experiments were carried out at the laboratory at Honolulu, in a district which is infested with mosquitoes, chiefly the *Culex cubensis*. In the first instance a number of specimens of mosquitoes were taken from a non-infected district, having been fed upon the healthy occupants of the houses in which they were taken. These were examined for acid-fast bacilli, but in twenty-one instances with negative results. A number of specimens of the same mosquito were next taken which had been fed upon lepers, the insects being captured early each morning from the rooms of the lepers. In those specimens an examination for acid-fast bacilli was equally unsuccessful. From this the author came to the conclusion that mosquitoes, feeding under natural conditions on cases of nodular leprosy, so rarely, if ever, imbibed the lepra bacilli, that we can exclude them as one of the ordinary means of transference of this bacillus from lepers to the skin of healthy individuals, and that this insect was not therefore of epidemiological importance. By a further series of experiments Dr. Currie found that if mosquitoes should imbibe any body-fluid which contained lepra bacilli they not only took the bacilli into their digestive tracts, but kept them there, morphologically unchanged for several hours; and that the mosquito, when it bites a leprosy nodule, does not imbibe the bacilli, and that when given its choice the insect appear to show no preference for either the normal skin or a nodule.

In febrile stages of leprosy bacilli are absent from the blood, and Dr. Currie concluded that the reason that mosquitoes which have fed on lepers do not

contain the lepra bacilli is that when these insects feed they insert their proboscis directly into a blood-vessel, and thus obtain bacilli-free blood, unmixed with lymph, and that the above-mentioned habit alone accounts for the absence of lepra bacilli in mosquitoes that have fed on lepers.

A series of experiments were also done in connection with flies, such as the *Musca domestica*, from which he concluded that given a bacilli-discharging leprous ulcer (and practically all leprous ulcers due to the breaking down of a leprous nodule do discharge bacilli), unprotected from the attacks of flies, these insects will convey the bacillus of leprosy to the skin of healthy persons in the neighbourhood; that such insects will contaminate the food-stuffs of such persons with these organisms; and that these insects deposit their fæces on every conceivable surface, and such fæces, becoming dry and pulverised, will in the form of "dust" convey the bacilli to the nasal mucosa of neighbouring persons.

J. M. H. M.

THE SPECIFIC TREATMENT OF LEPROSY. E. R. WHITMORE and M. T. CLEGG. (*The Philippine Journal of Science*, December, 1910, p. 559.)

It will be remembered some time ago Clegg reported that he had cultivated an acid-fast bacillus from the spleen and from nodules from the ear from a number of cases of leprosy by growing it in symbiosis with amœbæ, and had eventually obtained pure cultures of an organism which he believed to be the leprosy bacillus. From this a vaccine, a glycerine extract and a soap solution were made. These preparations were used for twelve months in cases of leprosy, but without any definite results. In some of the cases a reaction took place after an injection, but the authors were not prepared to say that the reaction was specific. The glycerine extract of the organism prepared in the same way as the old tuberculin was employed after the manner of the Von Pirquet's skin test for tuberculosis, but did not produce a reaction on lepers, tuberculous or normal patients. The soap solution was made from cultures on glycerine agar, which were scraped off and emulsified in soap solution so that 1 c.c. of the solution contained 1 mg. bacteria. This was injected in a number of cases of leprosy for several months once a week without any definite improvement. These same leprous patients were treated for two and a half months with a soap solution of leprous spleen, rich in leprous bacilli, without noting any improvement in the condition of the patients.

Cases of leprosy were also treated for eight months with injections of atoxy, and also with injections of a mixture of sodium cinnamate and mercury cinnamate, without noting any improvement in the patients.

Injections of Nastin B were also employed in certain patients for eight months. These patients already had been treated with injections of Nastin B for nine months. At the end of the seventeen months no improvement was noted.

J. M. H. M.

PEMPHIGUS VEGETANS, BEGINNING AS A CONDYLOMATOUS PATCH AT THE ANUS. S. POLLITZER. (*Festschrift zur Vierzig-jährigen Stiftungsfeier des Deutschen Hospitals, New York*, p. 546.)

DR. POLLITZER in his contribution to the *Festschrift* described four cases of pemphigus, the first a chronic pemphigus with severe involvement of the mucous membranes, apparent recovery under large doses of arsenic; the second

a Pemphigus pruriginosus ending in death from pneumonia. This case suggested Dermatitis herpetiformis, and there was a considerable eosinophilia. The third case was one of Pemphigus foliaceus, which also ended fatally.

The fourth case was of considerable interest as the primary lesion was a condylomatous tumour at the anus. The patient, a Russian, aged 59 years, applied for treatment at the German Hospital, New York, May 12th, 1908. His affection began three weeks before with an itching at the anus and it was for this symptom that he sought relief. Nothing in previous history.

Examination showed the affected region at the anus to consist of a broad, flat, slightly moist, deep-red plaque, fusiform in shape, about 10 and 20 cm. in its diameters, uniformly elevated above the surrounding level about 3 mm., its border regular and abrupt. The patch strikingly resembled a large syphilitic condyloma somewhat excoriated by scratching. For the past two weeks he had been applying a greyish salve which a druggist had given him for his "eczema," and it was to this probably mercurial ointment that Dr. Pollitzer ascribed the stomatitis from which he had suffered for one week past; pain, burning, salivation. His teeth were bad, the gums receded and inflamed, tongue red, moist and inflamed, submaxillary glands swollen. At his request, as he was unable to properly take care of himself, he was referred to the hospital, with a diagnosis of *Eczema ad anum quasi condylomatodes; stomatitis mercurialis*. He was admitted May 13th in the service of Dr. Buechler. Three days later a crop of blisters appeared at the margin of the condylomatous patch at the anus, and the diagnosis of Pemphigus vegetans was evident.

From that time on the course of his disease was progressively bad. By the middle of June there was a large area covered with foul-smelling exuberant condylomatous vegetations extending across the perinaeum and for two inches down each thigh. Around the umbilicus there was a similar smaller patch; on the chest and about the elbows there were numerous small scattered blebs on a slightly reddened basis. By the middle of July the anterior surface of the trunk was almost covered with blisters, which broke readily, leaving raw red surfaces on many of which granulations appeared. Throughout his stay of nine weeks in the hospital his temperature was nearly always normal, occasionally subnormal. The several blood-counts made showed an eosinophilia ranging from 16 to 25 per cent. Owing to the foul, penetrating odour from decomposing secretions in these unfortunate cases it is practically impossible to keep them in the wards of a general hospital. The patient was transferred to Bellevue Hospital on July 18th, and a few days later removed thence to the City Hospital, where he died November 4th.

J. H. SEQUEIRA.

RHINOSCLEROMA CURED BY X-RAY TREATMENT. E. DANZIGER
AND S. POLLITZER. (*Festschrift zur Vierzigjährigen Stiftungsfeier des
Deutschen Hospitals, New York.*)

THE patient was a married woman, aged 37 years, born in Russia. She consulted Dr. Danziger in 1905, her disease having been then in progress for three years. The neoplasm had been removed in 1904, but rapidly recurred, and a second operation was performed eight months later. At the second operation the affected area was thoroughly curetted after removal of the tumour. Three months later, the

patient having come to New York, she consulted Dr. Danziger. The left nasal cavity was then completely closed by the growth, and the tumour extended externally from the nasal septum on to the upper lip. The surface of the growth was of a reddish-brown colour covered with massive crusts of dried secretion, with a thick and infiltrated base. The ala nasi was thickened and of cartilaginous hardness. The right side of the septum nasi was also infiltrated and covered with dry crusts, which on removal exposed a slightly bleeding surface. The right ala nasi was somewhat thickened and the orifice was narrowed. Microscopical examination proved the tumour to be rhinoscleroma.

After an operation to clear the left nasal passage to permit nasal breathing a tube was worn for three months. Later the right orifice was enlarged. Dr. Pollitzer then undertook X-ray treatment, beginning on the May 1st, 1906. Three sittings were given weekly for three weeks, then two sittings for three weeks, and then one sitting per week. In all twenty exposures were given. A moderately hard tube was used at a distance of 8 to 10 centimetres from the growth, and the exposures were of five to six minutes' duration. Improvement was noticed in a fortnight. Dr. Danziger has had the patient under observation since October, 1906, when the alæ had contracted to their normal size and the ulcer on the upper lip had quite healed. There has been no return of the infiltration, and the scar is quite unimportant. Both nasal passages remain clear, but the interior of the cavity has the appearance of a rhinitis sicca. The length of time which the patient has been under observation since the treatment by the X-rays is an important point in the history of the case.

J. H. SEQUEIRA.

AN UNUSUAL FORM OF CHONDRO-EPITHELIOMA. F. C. WOOD, M.D., and CARL EGGERS, M.D. (*Festschrift zur Vierzigjährigen Stiftungsfeier des Deutschen Hospitals, New York.*)

THIS case is reported, first, because of the rarity of tumours of this type, and, second, because of the interest which it possesses in relation to a special group of tumours connected with the salivary glands.

The patient was a woman, aged 45 years, born in Bohemia. She entered the Hospital in April, 1909, complaining of wandering pains, felt sometimes in one leg, again in an arm, but never localised in any particular part of the body. She said she had a small nodular swelling on the left thigh which she thought might be responsible for the pain. The following history of this nodule was elicited:

The patient had for many years worked in a grocery store in Bohemia, where she was daily employed in breaking up blocks of sugar. Her work brought pressure on about the same part of the thigh daily for many years. About eleven years ago she noticed a minute nodule at this place under the skin. It caused no pain or discomfort, but gradually increased in size until about six years ago, when it was about as large as a pea. It then remained stationary until one year ago, when it began to enlarge more rapidly, and increased to 1.5 cm. in diameter.

The patient had always been healthy. She had five healthy children, sixteen to twenty-three years of age.

About the middle of the anterior surface of the left thigh there was a small prominence, the skin over which showed greenish-yellow discoloration as if it

were due to a bruise. On palpation this swelling was found to be a hard nodular mass the size of a large hazel-nut. It seemed to be partially attached to the skin, and was only slightly movable from side to side. It was not tender. There were no inflammatory signs. Careful examination did not reveal the presence of other nodules.

At the operation, under cocaine, the tumour was found to be in the subcutaneous tissue. It was not directly adherent to the skin, but the latter was held down over it by fibrous bands, which gave the impression of attachment. The mass was shelled out easily, and was found to be an irregular nodule, so hard as to suggest a chondroma.

The specimen on section had the clear bluish-white translucent appearance of hyaline cartilage, with a few narrow whitish trabeculae passing in from the periphery. The mass was surrounded by an irregular ragged capsule, and beyond this by fat and loose fibrous tissue.

Microscopically the appearance of this interesting growth was practically identical with that of the cartilaginous tumours arising in the salivary glands.

The nodule contained two different morphological elements: First, an imperfect hyaline cartilage; second, epithelial tubules. No nerves were found in the tumour, and the vascular supply was very small. No calcification nor bone-formation was present.

The epithelial elements of the tumour followed the trabeculae of connective tissue, and roughly divided the tumour into lobules. This epithelium lined the channels or alveoli, and was usually in several layers. There were also solid masses of epithelial cells scattered throughout the tumour. The epithelial cells were roughly cuboidal. The larger alveoli, however, were often filled with slightly granular, colloid masses staining a deep red with eosin. These colloid masses were exactly similar in appearance to the colloid masses found in the salivary tumours. The reason for considering the cells of this tumour as epithelium, though the growth was entirely a subcutaneous one and not directly connected with the skin, was that the cell masses contained numerous areas of cells between which it was easy to demonstrate intercellular bridges of the type seen in other epithelial new-growths.

Cartilaginous tumours as a rule appear in three situations: First, about such portions of the body in which embryonic development has been complicated, as the salivary region; second, in complex glandular organs, such as the kidney, ovary, and testicle; and third, most frequently in connection with the bones or cartilaginous framework of the body, where cartilage is normally present either during foetal or adult life. Chondromata in other sites are extraordinarily rare.

The authors consider that the most probable explanation of this growth is that it was due to the cartilaginous metaplasia of connective tissue following repeated trauma with the inclusion of some of the deeper skin-glands.

Some excellent plates are given.

J. H. SEQUEIRA.

DIE BEKÄMPFUNG DES LUPUS VULGARIS IN DÄNEMARK, 1896-1911. HOLGER FORCHAMMER. (Proceedings of the 3rd Sitting of the Lupus Section of the German Central Committee "zur Bekämpfung der Tuberkulose," Berlin, April 21st, 1911.)

DR. FORCHAMMER reported that in the fifteen years that the Finsen Light

Institute had been open in Copenhagen 2000 patients had been under treatment. He based his statistics upon 1200 cases treated between 1896 and 1906, all of them Danish patients whom the officials of the Institute had been able to keep under observation.

The primary sites were: On the face, 81 per cent., of which 50 per cent. began on the nose, and 28 per cent. on the cheek; on the neck, 8 per cent.; on the ears, 2 per cent.; on the upper extremity, 8 per cent.; on the lower extremity, 1 per cent.

The results in the 1200 cases were as follows: Cured, 721 (60 per cent.); under treatment, 217 (18 per cent.); treatment discontinued, 131 (11 per cent.); dead, 131 (11 per cent.); total, 1200.

Of the cured cases, 33 were free from recurrence for 10 years and upwards; 289 for 5 to 10 years; 306 for 2 to 5 years; 93 for less than 2 years.

More than half of the patients treated have thus been free from recurrence for from two to ten years.

It will be noticed that 217 patients are still under treatment. These Dr. Forchhammer frankly says are cases which are incurable, but they are treated as required from time to time in order to keep the disease from extending.

He divides his cases into two classes—initial cases, and inveterate cases—many of the latter having been affected for years before they came to the clinic. The results in the initial cases are: of 437 patients, 333 cured, or 76 per cent.

In the inveterate cases, numbering 763, 388 were cured, or 51 per cent.

Even, therefore, in the worst type the results of the treatment carried out at the Light Institute are remarkably good. Dr. Forchhammer acknowledges the importance of treating the mucous lesions, and reports favourably upon the galvano-cautery and also upon Dr. Pfannenstiel's method with iodides and peroxide of hydrogen.

J. H. SEQUEIRA.

REVIEWS.

LES NOUVELLES MYCOSES.*

THIS little volume is a valuable addition to the *Encyclopédie Scientifique des Aide-Memoire*. Under the title of the new mycoses, de Beurmann and Gougerot consider a group of affections formerly looked upon almost as pathological curiosities, which are now attracting increasing attention from clinicians. They include the blastomycoses, oidiomycoses, sporotrichoses, nortyrimycoses, oosporoses, and hemisporoses.

The authors show that these mycoses are much more common than has been suspected, and that they are often mistaken for tuberculous, syphilitic or coccogenic affections. It is claimed that by the use of a simple technique, which is very clearly described, these diseases may be generally recognised with ease.

* *Les Nouvelles Mycoses*. By DE BEURMANN and GOUGEROT. Masson & Co. Price 3 francs.

The fungi under consideration produce variable clinical features, *e. g.* cervico-facial actinomycosis, Madura foot, thrush, as well as the rarer gummatous or pseudo-gummatous lesions of sporotrichosis, and the manifestations of blastomycosis. Their ravages are not confined to the skin and subcutaneous tissue, for aspergillosis may simulate pulmonary tuberculosis, mucormycosis may resemble one form of typhoid fever, while conditions resembling pyæmia may be caused by the blastomyces. There are many forms of anatomical reaction to these infections, and their evolution and prognosis vary very much with the organism present. An interesting feature in the work before us is the summary of the researches of the authors and others upon sero-diagnosis and immunity, which shows how closely related are the reactions of the human organism to these fungi and to the bacteria.

The little brochure will be of use to practising dermatologists, as it brings together in a small compass a clear account of a group of affections which certainly deserve careful study. It is unfortunate that the illustrations are so crude, but in a work published at such a low price this could hardly be avoided.

J. H. SEQUEIRA.

PRINCIPLES AND APPLICATION OF LOCAL TREATMENT IN DISEASES
OF THE SKIN.*

IN these four lectures given by Dr. Bulkeley to practising physicians at the New York Skin and Cancer Hospital, the principles underlying local treatment are discussed and illustrated in their application to some of the commoner diseases of the skin. It is claimed, and we think with justice, that it gives practical suggestions in regard to many matters not ordinarily found in the text-books.

The work is essentially a personal one, based upon many years of practical work, and we think the author has been well advised in giving a wider public the benefit of his extensive experience.

J. H. SEQUEIRA.

* *Principles and Application of Local Treatment in Diseases of the Skin.* By L. DUNCAN BULKELEY, A.M., M.D. Rebman, Ltd. Price 4s. 6d. net.

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